

AMENDMENTS TO THE CLAIMS

1-11. (Cancelled).

12. (Currently Amended) A node for an optical communication network comprising:

at least one switching unit;

a plurality of optical interfaces to connect to a Wavelength Division Multiplex (WDM)

transmission line, each optical interface comprising:

a demultiplexer to disassemble an incoming multiplex signal arriving from the WDM

transmission line into a plurality of input channels, each input channel being supplied

to an input port of the switching unit; and

a multiplexer to assemble a plurality of output channels from a corresponding plurality of

output ports of the switching unit into an outgoing multiplex signal; and

at least one receiver to extract an information signal received from the optical

communication network; and

an input branching mechanism connected directly to the at least one receiver, and disposed

on the path of the input channels between each optical interface and the switching unit

to selectively supply an input channel alternatively to the switching unit or to the receiver.

13. (Previously Presented) The node of claim 12 wherein the demultiplexer includes a plurality of output ports, and wherein the input branching mechanism comprises a switch associated with each demultiplexer output port to selectively connect the demultiplexer output port to one of the input ports of the switching unit or to the receiver.

14. (Previously Presented) The node of claim 13 wherein a number of receivers corresponds to the number of input channels, and wherein the input branching mechanism connects each receiver to an associated demultiplexer output port.

15. (Previously Presented) The node of claim 14 wherein each receiver comprises an optical-electrical converter.

16. (Currently Amended) A node for an optical communication network comprising:

at least one switching unit;

a plurality of optical interfaces to connect to a Wavelength Division Multiplex (WDM) transmission line, each optical interface comprising:

a demultiplexer to disassemble a multiplex signal arriving from the WDM transmission line into a plurality of input channels, each input channel being supplied to an input port of the switching unit; and

a multiplexer to assemble a plurality of output channels from a corresponding plurality of output ports of the switching unit into an outgoing multiplex signal; and

at least one transmitter to supply an information signal to the optical communication network; and

an output branching mechanism connected directly to the at least one transmitter, and disposed on the path of the output channels between each optical interface and the switching unit to selectively supply an output channel ~~alternatively~~ to the interface alternatively from the switching unit or from the transmitter.

17. (Previously Presented) The node of claim 16 wherein the multiplexer includes a plurality of input ports, and wherein the output branching mechanism comprises a switch associated with each multiplexer input port to selectively connect the multiplexer input port to one of the output ports of the switching unit or to the transmitter.

18. (Previously Presented) The node of claim 17 wherein a number of transmitters corresponds to the number of output channels, and wherein the output branching mechanism connects each transmitter to an associated multiplexer input port.

19. (Previously Presented) The node of claim 18 wherein the transmitter connects to one or more output channels and is adapted to supply an information signal having a selectable wavelength to one of the output channels.

20. (Previously Presented) The node of claim 18 wherein each transmitter comprises an electrical-optical converter.

21. (Currently Amended) A node for an optical communication network comprising:

at least one switching unit;

a plurality of optical interfaces to connect to a Wavelength Division Multiplex (WDM)

transmission line, each optical interface comprising:

a demultiplexer to disassemble a multiplex signal arriving from the WDM transmission

line into a plurality of input channels, each input channel being supplied to an input port of the switching unit; and

a multiplexer to assemble a plurality of output channels from a corresponding plurality of output ports of the switching unit into an outgoing multiplex signal; and

at least one transponder comprising a transmitter to supply an information signal to the optical communication network and a receiver to extract an information signal received from the optical communication network; and

a branching mechanism disposed between each optical interface and the switching unit to selectively supply an output channel to the interface alternatively from the switching unit or from the transmitter and to selectively supply an input channel alternatively to the switching unit or to the receiver;

wherein the transmitter and receiver of each transponder are connected directly to the same branching mechanism.

22. (Previously Presented) The node of claim 21 further wherein each branching mechanism is further operative to supply to the switching unit an input channel from the optical interface or from one of the transponders, and to supply an output channel from the switching unit to an output channel of the optical interface or to one of the transponders.

23. (Previously Presented) The node of claim 21 wherein each receiver comprises an optical-electrical converter, and each transmitter comprises an electrical-optical converter.

24. (Previously Presented) The node of claim 21 wherein the transponder includes a signal regenerator circuit.